INVITED COMMENTARY

Michael C. Dalsing, MD, *Indianapolis, Ind*

The authors report on a 13-year-old, 4-foot-5-inch, 99-pound boy who experienced a distal superficial femoral artery occlusion as a result of blunt trauma. Intimal injury is one plausible etiology for blunt trauma occlusion, which could, if a wire passed easily, be stented open with some risk for showering acute thrombus. The patient was nearing 6 hours of acute limb ischemia. A rapid attempt at stent placement with the possible need for distal thrombolysis could provide a solution to a difficult problem. The trade-off for rapid restoration of blood flow is the placement of a metal stent in a small and yet to fully mature superficial femoral artery. Most current data would suggest that stent placement in this location has a significant risk of restenosis or occlusion within a relatively short time, and the stent cannot be expected to grow with the child. There is no track record for such a device in children. These concerns can, of course, be ignored in favor of salvage if that is the most logical choice. Theoretically, drug-eluting stents, absorbable stents, and covered stents may improve this outlook but are not directly pertinent to this case.

I do not feel that the vascular surgeon/interventionalist reading this article should go away with the impression that autogenous vein is likely to fail in the scenario presented or that a great saphenous vein in a 13-year-old is too small to use as an arterial conduit. It has been my experience and many others that patients much younger with an even smaller great saphenous vein can expect that this conduit will provide for initial limb salvage, will grow with the patient, and will not become aneurysmal over time.[1]

The presence of a large thigh hematoma is concerning because it suggests the possibility of vascular disruption with extravasation prior to protective thrombosis of the bleeding vessel. Stenting in this case might have converted a protective clot to an active rebleed, and certainly thrombolysis would have been contraindicated. In my opinion, this should have been considered by the authors, and some explanation should have been provided as to why this was not a concern.

One successful case in a teenager does not allow the authors to answer the question they pose in the title: "is stenting a good option?" It is one innovative option, with the proof of "goodness" yet to come.

REFERENCE

1. Dalsing MC, Cikrit DF, Sawchuk AP. Open surgical care of children less than 13 years old with lower extremity vascular injury. J Vasc Surg 2005; 41:983-7.